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A NEW FRESH-WATER AMPHIPOD CRUSTACEAN FROM OREGON

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In a recent account of the fresh-water amphipod fauna of Oregon (Bousfield, 1961), the writer listed ten known species including two species of *Crangonyx*, *C. richmondensis occidentalis* Hubricht and Harrison and *C. pseudogracilis* Bousfield. During a further examination of *Crangonyx* material from small alpine lakes in southwestern Oregon, a third species was identified. It proved to be distinct from other North American species studied by the writer (Bousfield, 1958) and from other known species of the genus and is herewith described as *Crangonyx alpinus* sp. nov.

The present study is part of a general survey of gammaridean amphipods in the collection of the Museum of Comparative Zoology, Harvard University, conducted in May, 1962, with the aid of a grant from the National Science Foundation. The writer wishes to thank Dr. Elisabeth Deichmann for instigating the study and for her many kindnesses and co-operation during the undertaking.

In the list of specimens, MCZ refers to the Museum of Comparative Zoology, and NMC to the National Museum of Canada.

Family GAMMARIDAE

CRANGONYX ALPINUS n. sp.

(Figs. 1, 2)

Material examined: A total of 52 specimens, collected in alpine lakes of Lane and Douglas counties, Oregon, by F. Ziesenheim during the summer of 1937, as follows: Corner L. (alt. 4800 ft.), Lane Co., July 29, MCZ No. 10027 — 3 fem., 12 juv.; Ledge L.

(5350 ft.), Lane Co., Aug. 5, MCZ No. 10028 — 1 ovig. fem. (TYPE), 1 juv.; Pork L. (4820 ft.), Lane Co., Aug. 9, MCZ No. 10029 — 3 fem. imm.; Plumb L., Lane Co., Aug. 21, MCZ No. 10030 — 6 juv.; Opal L. (5480 ft.), Douglas Co., Sept. 7, MCZ No. 10031 — 8 imm.; Whig. L. (5270 ft.), Douglas Co. Sept. 24, MCZ No. 10032 — 2 imm.; Emma L. (5190 ft.), Lane Co., Sept. 25, MCZ No. 10033 — 6 fem. imm., 4 male imm.; Easter Brook L. (5050 ft.), Lane Co., Sept. 27, MCZ No. 10034 — 1 fem. (Br. 1), 3 juv.; Mud L. (4950 ft.), Lane Co., Sept. 29, NMC No. 10035 — 1 fem. imm.

Diagnosis: A small species of the *richmondensis* group having elongate antennae, peraeopods and uropods, reduced mouthparts, shallowly cleft telson, and powerful gnathopods, but distinguished by the acuminate abdominal side plates, sharply serrated basal segments of peraeopods 3-5, singly inserted posterior marginal setae of segment 6 of gnathopod 1, long marginal spines of uropod 3 and telson, and by the small eye.

Female (10.5 mm.). Eye small, black, irregularly oval, removed from anterior head margin. Antenna 1, flagellum of 25 segments; accessory flagellum shorter than 1st flagellar segment. Antenna 2, flagellum of 9 segments.

Lower lip, inner lobes, distinct, rather broad. Mandibular palp, terminal segment slender, with 3 outer marginal setae. Maxilla 1, inner plate with only two plumose marginal setae. Maxilla 2, plates relatively narrow; inner plate with only one elongate plumose facial seta. Maxilliped, inner plate short, truncate apex with 5 slender spine-teeth; outer plate small, outer margin convex; dactyl of palp stout.

Lower corners of coxal plates 1 and 2 rounded, each with 3-5 short marginal setae. Gnathopod 1, posterior margin of segment 2 with numerous slender setae, anterior margin nearly bare; posterior margin of segment 5 with 3-4 clusters of long, slender, distally flexed spines, some minutely pectinate; segment 6 (propodus) subquadrate, widest distally; palmar margin evenly convex, slightly oblique, armed with about 12 medium-small spine-teeth on each side, strongest and closely crowded near posterior angle; posterior margin with 6-7 slender setae appearing singly inserted; dactyl fairly heavy, closely fitting palm. Gnathopod 2, segment 2 distally broadening, margins with several long setae; posterior margin of segment 5 with 5 posterior groups of setae; segment 6 subrectangular, distally broadening;

palm smoothly convex, oblique, lined with widely-spaced medium-strong spine-teeth; posterior angle with one prominent spine and another smaller spine; posterior margin nearly two-thirds the anterior; inner face of propodus with 4 groups of superior lateral setae, 1-3 setae per cluster; dactyl rather slender.

Peraeopods 1 and 2 slender, subequal; posterior margins of segments 4-6 moderately spinose. Coxal plate of peraeopod 2 nearly as broad as deep, proximally emarginate behind. Peraeopods 3-5 long and slender, 4th longest. Basal segments of peraeopods are similar in size and shape; posterior margins gently convex, with about 7-9 rather deep serrations, distally sharpest; length of dactyls $\frac{1}{4}$ to $\frac{1}{3}$ the propods.

Brood plates moderately large; setae numerous, elongate, minutely cleft at tip. Coxal gills present on segments 2-7, paired sternal gills on segment 6, two pairs on segment 7.

Pleopods powerful, 1st strongest; rami about twice the length of the peduncle, inner ramus somewhat longer than outer. Peduncles of pleopods each with a few simple marginal setae and 3-4 coupling spines of at least two types. Proximal setae of inner ramus are non-plumose and bifid at the tip.

Abdominal side plates, posterior margin shallowly incurved distally, corners sharply acuminate and produced posteriorly, most strongly in side plate 2.

Uropods 1 and 2 rather long and slender, lateral margins of both rami armed with short spines. Uropod 3, outer ramus slender, about twice the peduncle, lateral margins armed with about 4 groups of longish spines; inner ramus with 1 sub-apical spine; peduncle with 1 or 2 lateral marginal spines. Telson about as broad as long, shallowly emarginate, each lobe terminated by 2 longish spines.

Remarks: Mature males were not present in material at hand. The principal breeding period is probably June and early July following which the adults die off.

REFERENCES

BOUSFIELD, E. L.

- 1958. Fresh-water amphipod crustaceans of glaciated North America. *Can. Field-Nat.* **72**(2): 55-113.
- 1961. New Records of fresh-water amphipod crustaceans from Oregon. *Nat. Mus. Can. Nat. Hist. Paper No. 12*, 7 pp.

Abbreviations for the Figures

A1 — Antenna 1	P3 — peraeopod 3
A2 — Antenna 2	P4 — peraeopod 4
LL — lower lip	P5 — peraeopod 5
Lft Md — Left mandible	PL1 — pleopod 1
Rt Md — Right mandible	PL3 — pleopod 3
Mx1 — Maxilla 1	U1 — uropod 1
Mx2 — Maxilla 2	U2 — uropod 2
Mxpd — Maxilliped	U3 — uropod 3
Gn1 — Gnathopod 1	T — telson
Gn2 — Gnathopod 2	EP1 — abdominal side plate 1
P1 — peraeopod 1	EP2 — abdominal side plate 2
P2 — peraeopod 2	EP3 — abdominal side plate 3

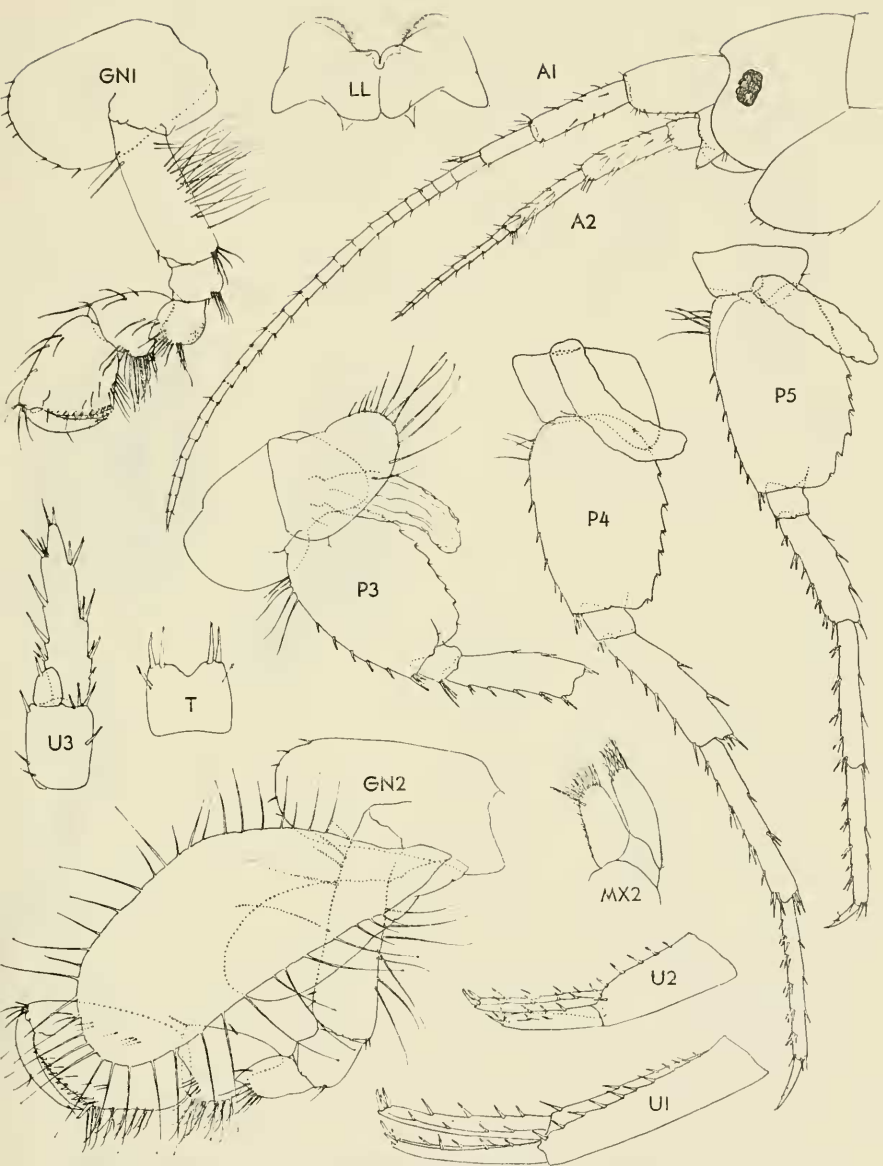


Figure 1. *Crangonyx alpinus* n. sp. Ledge L., Lane Co., Oregon, August 5, 1937, female (TYPE) 10.5 mm.

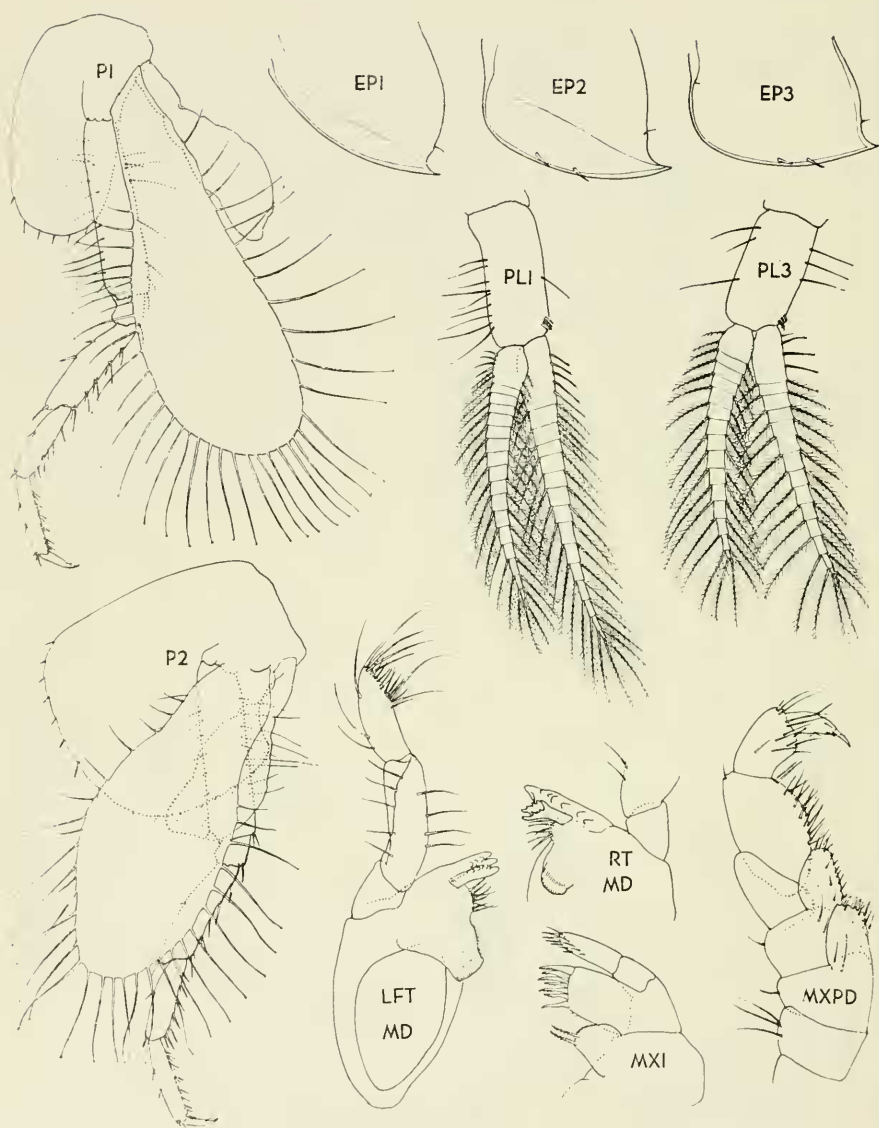


Figure 2. *Crangonyx alpinus* n. sp. Ledge L., Lane Co., Oregon, August 5, 1937, female (TYPE) 10.5 mm.